

ABSTRACT OF THE INVENTION

[0045] A local oscillator (LO) circuit is disclosed which provides improved isolation between the unselected LO source and a mixer. The LO circuit includes a first LO source to generate a first periodic signal cycling at a first frequency, a second LO source to generate a second periodic signal cycling at a second frequency different than the first frequency, a limiter, a first switching element to selectively couple the first LO source to the limiter, and a second switching element to selectively couple the second LO source to the limiter. The limiter improves the isolation of the leakage LO signal (i.e. the unselected LO signal) with respect to the selected LO signal. The improved isolation comes about because the limiter gain associated with the selected LO signal is greater than the gain associated with the leakage LO signal. A receiver and transmitter using the LO circuit are also disclosed.